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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,199

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Hans-Peter Arnold

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EXAMINER

TIETJEN, MARINA ANNETTE

ART UNIT

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3753

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/596,199	<b>Applicant(s)</b> ARNOLD ET AL.	
	<b>Examiner</b> MARINA TIETJEN	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/11/2007 and 09/11/2008</u> .                               | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1 and 13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3 and 1, respectively, of U.S.

Patent No. 7017346. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

All the details of claims 1 and 13 are recited in claims 3 and 1, respectively, of patent 7017346. The ‘346 claims are seen to anticipate the claims in this application because all elements of the application claims are found in the patent claims. Since anticipation is seen as the epitome of obviousness, the instant claims are seen as obvious in view of the ‘346 claims. *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993)

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Bortolan (DE 3711393).

Regarding Claim 1, Bortolan discloses a device comprising a first body 4 (Fig. 1) which has a recess (Fig. 1), a second body 1 (Fig. 1) which is introduced into the recess, and an elastomer (Fig. 1, col. 3, line 26) which is inserted between the first 4 and second 1 body in the recess and thus in this area closes and seals the space between the first 4 and second 1 body, wherein the elastomer 2 comprises a first groove 11 (Fig. 1) extending at least partly along the recess while located at a distance from the wall of the recess.

Regarding Claim 2, Bortolan discloses the first groove 11 is embodied to run all the way around within the recess.

Regarding Claim 9, Bortolan discloses the first 4 and second 1 bodies are embodied as tubular shapes.

Regarding Claim 10, Bortolan discloses a chamber device comprising a chamber which has a chamber housing 4 (Fig. 1), which comprises a recess with a plunger 1 and

with the aforementioned device, wherein the chamber housing 4 is the first body and the plunger 1 the second body.

Regarding Claim 11, Bortolan discloses a chamber device comprising a chamber comprising a chamber housing, which comprises a recess with a plunger and with the aforementioned device, wherein the chamber housing is connected to the first body and the plunger to the second body.

3. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Weber et al. (3121569).

Regarding Claim 1, Weber et al. discloses a device comprising a first body 11 (Fig. 1) which has a recess (Fig. 1), a second body 1 (Fig. 1) which is introduced into the recess, and an elastomer 2 (Fig. 2) which is inserted between the first 11 and second 1 body in the recess and thus in this area closes and seals the space between the first 11 and second 1 body, wherein the elastomer 2 comprises a first groove (Fig. 1) extending at least partly along the recess while located at a distance from the wall of the recess.

Regarding Claim 8, Weber et al. disclose the area of the first and second body against which the elastomer abut are free of edges.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 5, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bortolan (DE 3711393).

Regarding Claim 3, Bortolan discloses the invention as essentially claimed, except for the first groove is at a distance of 0.2 to 1.5 mm from the wall of the recess of the first body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust the location of the first groove to be at a distance of 0.2 to 1.5 mm from the wall of the recess of the first body, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

Regarding Claim 5, Bortolan discloses the invention as essentially claimed, except for the second groove is a distance of 0.2 to 1.5 mm from the position of the elastomer on the second body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust the location of the second groove to be at a distance of 0.2 to 1.5 mm from the position of the elastomer on the second body, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

Regarding Claim 12, Bortolan discloses the invention as essentially claimed, except for the chamber housing is welded to the first body and the plunger is welded to the second body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bortolan's invention such that the chamber

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housing is welded to the first body and the plunger is welded to the second body, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routing skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

6. Claims 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bortolan (DE 3711393) in view of Kanari et al. (6273430).

Regarding Claims 4, 6, and 7, Bortolan discloses the invention as essentially claimed, except for a second groove is embodied in the elastomer running radially inside the first groove, that the first groove is deeper than the second groove, and that the second groove is wide enough to open out into the first groove.

Kanari et al. teach a second groove (Fig. 5) is embodied in an elastomer running radially inside a first groove (Fig. 5), that the first groove is deeper than the second groove, and that the second groove is wide enough to open out into the first groove, for the purpose of providing an elastomeric seal with improved seal lip 1 (Fig. 5) extension due to increased flexibility and increased surface area for pressure accumulation.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bortolan's invention to include a second groove is embodied in the elastomer running radially inside the first groove, that the first groove is deeper than the second groove, and that the second groove is wide enough to open out into the first groove, as suggested by Kanari et al., for the purpose of providing an

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elastomeric seal with improved seal lip 1 (Fig. 5) extension due to increased flexibility and surface area pressure accumulation.

7. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurz (DE 10162045) in view of Bortolan (DE 3711393).

Regarding Claim 13, Schurz discloses the invention as essentially claimed, including a transfer device, which transfers a displacement of an actuator 2 which has a housing 5, comprising a first recess in which a first and a second plunger 6, 7 are displaceably mounted, wherein the first and the second plunger 6, 7 are effectively connected via at least one transfer chamber 10, 11 using a fluid, the effective connection causes a displacement of the second plunger 7 if the first plunger 6 is moved and vice versa, and wherein the transfer chamber 10, 11 is hydraulically connected via a sealing gap 21 with a compensating chamber 22 which provides delayed compensation for differences in pressure between the transfer chamber 10, 11 and the compensating chamber 22 and with a chamber device, wherein the chamber is the compensating chamber 22, the chamber housing is the housing 5, and the plunger is the first plunger 6. However, Schurz does not disclose an elastomer arranged in the chamber device, the elastomer having a first groove, which extends at least partially along the recess while located at a distance from the wall of the recess.

Bortolan teaches an elastomer having a first groove which extends partially along a recess, while being located a distance from the wall of the recess for the purpose of



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providing a seal for a movable part, wherein the groove creates lips that increase the sealing effect.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Schurz's invention to include an elastomer arranged in the chamber device, the elastomer having a first groove, which extends at least partially along the recess while located at a distance from the wall of the recess, as taught by Bortolan, for the purpose of providing a seal for a movable part, wherein the groove creates lips that increase the sealing effect.

Regarding Claim 15, the limitation "the transfer device is for an injection valve" is an intended use recitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bortolan (DE 3711393) in view of Blenner et al. (4396450).

Regarding Claim 14, Bortolan disclose the invention as essentially claimed, however is silent on the method of adhering the elastomer to the first and second bodies of the device, wherein the method comprises the steps of:

- plasma-activating the first body and the second body,
- providing the first body and the second body with a bonding agent in the areas in which the elastomer is to be applied,

- and then introducing and vulcanizing the elastomer.

Blenner et al. teach a method of bonding vulcanizable natural and synthetic rubbers to metal comprising the steps of plasma-activating the first body and the second body, providing the first body and the second body with a bonding agent in the areas in which the elastomer is to be applied, and then introducing and vulcanizing the elastomer, for the purpose of providing adhesion with improved resistance to adverse and aggressive environments (col. 1, lines 34-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bortolan to such that the method of adhering the elastomer to the first and second bodies comprised of the steps of plasma-activating the first body and the second body, providing the first body and the second body with a bonding agent in the areas in which the elastomer is to be applied, and then introducing and vulcanizing the elastomer, as taught by Blenner et al., for the purpose of providing adhesion with improved resistance to adverse and aggressive environments.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARINA TIETJEN whose telephone number is (571) 270-5422. The examiner can normally be reached on Mon-Thurs, 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GREG HUSON can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen M. Hepperle/  
Primary Examiner, Art Unit 3753

/M. T./  
Examiner, Art Unit 3753